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# A revision of types and additional material of Staphylinidae from the Iablokoff-Khnzorian collection (Insecta: Coleoptera)

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A b s t r a c t : Types and additional material from the Iablokoff-Khnzorian collection are revised. The following synonymies are proposed: *Olophrum puncticolle* EPPELSHEIM, 1880 = *O. erevanicum* IABLOKOFF-KHNZORIAN, 1964, nov.syn.; *Astenus procerus* (GRAVENHORST, 1806) = *Astenus silvicola* IABLOKOFF-KHNZORIAN, 1961, nov.syn.; *Myrmoecia reitteri* (EPPELSHEIM, 1881) = *Zyras argus* IABLOKOFF-KHNZORIAN, 1960, nov.syn.; *Aleochara* (*Xenochara*) *rambouseki* LIKOVSKÝ, 1964 = *A. addenda* LIKOVSKÝ, 1981, nov.syn., = *A. hamulata* ASSING, 2009, nov.syn. The holotypes of *Rugilus armeniacus* (COIFFAIT, 1970), *Aleochara polychroma* IABLOKOFF-KHNZORIAN, 1966, and *A. nobilis* LIKOVSKÝ, 1965 are illustrated. The latter is moved to the subgenus *Xenochara* MULSANT & REY, 1874 (ex *Heterochara* MULSANT & REY, 1874). Seven species of Staphylinidae are reported from Armenia and one from Slovenia for the first time. The record of one species from Armenia is based on a misentification.

K e y w o r d s : Coleoptera, Staphylinidae, West Palaearctic, Armenia, Turkey, Slovenia, taxonomy, type revision, new synonymies, new subgeneric assignment.

# Introduction

The original descriptions of a significant number of species of Staphylinidae are based on Armenian material deposited in the Iablokoff-Khnzorian collection. This collection is currently housed in the private home of Mark Kalashian, Yerevan.

The type material of some species described by Iablokoff-Khnzorian was already revised earlier (ASSING 2005). On the occasion of a field trip to Armenia in summer 2016, Mark Kalashian granted the opportunity to study the Khnzorian collection and to take along specimens, among them types, for closer study. The results are dealt with in the present paper; those of a revision of the type material of some Xantholinini species are presented separately (ASSING 2017).

#### Material and methods

The material treated in this study is deposited in the following collections:

The morphological studies were conducted using a Stemi SV 11 microscope (Zeiss Germany) and a Jenalab compound microscope (Carl Zeiss Jena). The images were created using a photographing device constructed by Arved Lompe (Nienburg) and CombineZ software, as well as a digital camera (Nikon Coolpix 995).

#### Results

# Olophrum puncticolle EPPELSHEIM, 1880

Olophrum puncticolle EPPELSHEIM, 1880: 212 f.

Olophrum erevanicum IABLOKOFF-KHNZORIAN, 1964: 155 ff.; nov.syn.

Type material examined: O. puncticolle: Lectotype ♂: "puncticolle mihi, Süd-Ungarn, Kuthy / c. Eppelsh. Steind. d. / Typus / Lectotypus Olophrum puncticolle Epp. / des. A. Zanetti 2008" (NHMW).

O. erevanicum: Holotype  $\delta$ : "Erevan, Dzhrbezh, ASSR - 16-5-48 / Holotypus / Olophrum puncticolle Eppelsheim, det. V. Assing 2017" (cKal). Paratype [teneral]: same data as holotype, but "18-4-48" (cKal).

A d d i t i o n a l m a t e r i a l e x a m i n e d: Slovenia: 1♂, Krivi vrh, Sv. Ana, 28.IV.1998, leg. Drovenik (cAss); 1♂, Police, Gor. Radgona, 28.III.1998, leg. Drovenik (cAss). Turkey: K a s t a m o n u : 1♂, 40 km NW Kastamonu, NE Azdavay, W Yeşilpınar, 41°42'N, 33°28'E, 1090 m, calcareous slope and flooded field, under stones, 22.III.2010 (cAss); 1♂, 1♀, 45 km NW Kastamonu, 5 km NW Ağli, 41°44'N, 33°30'E, stream bank, floated, 23.III.2010, leg. Assing (cAss); 1♀, road from Ağli to Azdavay, 41°41'N, 33°24'E, 910 m, calcareous stream in open land, 26.IV.2006 (cAss). S i n o p: 1♀, ca. 22 km S Sinop, N Lala, 41°53'N, 35°03'E, 160 m, oak and laurel forest with undergrowth, sifted, 31.III.2009, leg. Assing (cAss). S a m s u n: 1♂, 1♀, 15 km NW Bafra, Karaboğaz Gölü, 41°41'N, 35°48'E, 0 m, beach, flood debris, sifted, 30.III.2009, leg. Assing (cAss); 1♂, 9 km WNW Bafra, 41°35'N, 35°50'E, 55 m, mixed deciduous forest with oak, *Hedera* and *Rubus* undergrowth, 30.III.2009, leg. Wunderle (cWun). G a z i a n t e p: 1♂, W Birecik, Belkis/Euphrat, 37°03'N, 37°53'E, 440 m, 24.IV.2004, leg. Besuchet (cAss).

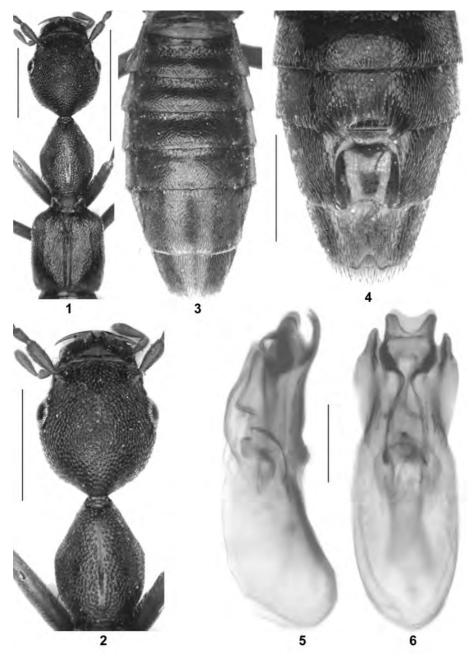
C o m m e n t: The original description of *Olophrum puncticolle* is based on an unspecified number of syntypes ("in wenigen Exemplaren") from "Südungarn" (EPPELSHEIM 1880). ZANETTI (2008) designated a lectotype. A comparison of the holotype and a paratype of *O. erevanicum* with the lectotype and additional material of *O. puncticolle* revealed that they are conspecific, so that *O. erevanicum* is placed in synonymy with *O. puncticolle*. According to SCHÜLKE & SMETANA (2015), this species was previously unknown from Slovenia.

#### Astenus procerus (GRAVENHORST, 1806)

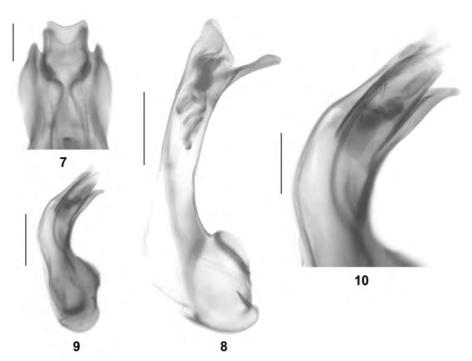
Astenus silvicola IABLOKOFF-KHNZORIAN, 1961: 142 f.; nov.syn.

Type material examined: Holotype  $\varphi$ : "Alaverdi, Akhtala, ASSR. 6.6.49 / Typus / Holotypus / Astenus silvicola Khnz. / Astenus (Astenognathus) filiformis? H. Coiffait det. 1970 / Astenus procerus (Gravenhorst), det. V. Assing 2017" (cKal). Paratype  $\varphi$  [without head and pronotum]: "Sevan, Ushtapalar, ASSR. 1.8.48 / Paratypus Astenus silvicola Khnz. / Astenus procerus (Gravenhorst), det. V. Assing 2017" (cKal).

C o m m e n t: The original description of *A. silvicola* is based on two specimens, a holotype and a paratype, from "Akhtala (Arménie du Nord)..., holotype" and "mont Oushtapalar, au sud du lac Sevan..., paratype" (IABLOKOFF-KHNZORIAN 1961). An examination of this type material revealed that both are females. In external characters they are identical to *A. procerus*, with which *A. silvicola* is consequently synonymized.



**Figs 1-6**: *Rugilus armeniacus* (COIFFAIT), holotype: (1) forebody; (2) head and pronotum; (3) abdomen; (4) abdominal segments V-VIII in ventral view; (5-6) aedeagus in lateral and in ventral view. Scale bars: 1-3: 1.0 mm; 4: 0.5 mm; 5-6: 0.2 mm.



Figs 7-10: Rugilus armeniacus (COIFFAIT), holotype (7), Aleochara nobilis LIKOVSKÝ, holotype (8), and A. polychroma IABLOKOFF-KHNZORIAN, holotype (9-10): (7) apical portion of aedeagus in ventral view; (8-9) median lobe of aedeagus in lateral view; (10) apical portion of median lobe of aedeagus in lateral view. Scale bars: 8-9: 0.2 mm; 7, 10: 0.1 mm.

# Rugilus armeniacus (COIFFAIT, 1970) (Figs 1-7)

Stilicus armeniacus COIFFAIT, 1970: 154 f.

Type material examined: <u>Holotype ♂</u>: "Goris, Shurnukhi, ASSR - 16-6-50 / Type / *Stilicus armeniacus* Coiffait, H. Coiffait det. 1970" (cKal).

C o m m e n t: The original description is based on a male holotype from "Gorus, R.S.S. d'Arménie" and a female paratype with the same data (COIFFAIT 1970). In size, habitus, and the male secondary sexual characters, *R. armeniacus* is highly similar to *R. iranicus* COIFFAIT, 1981, from which it differs particularly by denser punctation of the head and pronotum, distinctly denser and finer punctation of the abdomen, and by slight differences in the morphology of the aedeagus. The external and male sexual characters of the holotype are illustrated in Figs 1-7.

## Pseudolathra araxidis COIFFAIT, 1972

Pseudolathra araxidis COIFFAIT, 1972: 133.

Type material examined: Holotype φ: "Dzhulfa, Araks, ASSR. 2.5.55 / Holotypus / Pseudolathra araxidis H. Coiffait det. 1971" (cKal).

C o m m e n t: The original description is based on two females (holotype and paratype) from "Djoulfa, Araxe, Arménie soviétique" (COIFFAIT 1970). The species was

subsequently reported also from Kazakhstan (SCHÜLKE & SMETANA 2015). However, males from Armenia would be required to clarify the identity of this species.

# Lathrobium brunnipes (FABRICIUS, 1792)

M a t e r i a l  $\,$  e x a m i n e d : Armenia:  $1 \circ$ , Silizhan, Barz-gel, 27.V.1951, leg. Khnzorian (cKal).

C o m m e n t: This species was previously unknown from Armenia (SCHÜLKE & SMETANA 2015).

# Lathrobium fulvipenne (GRAVENHORST, 1806)

M a t e r i a l e x a m i n e d: Armenia: 13, Aparan, lake, 31.V.1950, leg. Khnzorian (cKal).

C o m m e n t : The above male represents the first record from Armenia (SCHÜLKE & SMETANA 2015).

# Lathrobium longulum GRAVENHORST, 1802

M a t e r i a l e x a m i n e d : <u>Armenia</u>: 1 ex., Yerevan, Dzhrvezh, 7.V.1952, leg. Khnzorian (cKal).

C o m m e n t: The vast distribution of *L. longulum* ranges from West Europe eastwords to East Siberia, but it had not been recorded from Armenia before (SCHÜLKE & SMETANA 2015).

# Tetartopeus stylifer (REITTER, 1909)

M a t e r i a l e x a m i n e d : Armenia: 1 ex., Kapan, 21.VII.1952, leg. Khnzorian (cKal).

C o m m e n t : The above specimen represents the first record from Armenia (SCHÜLKE & SMETANA 2015).

## Achenium humile (NICOLAI, 1822)

M a t e r i a l e x a m i n e d : Armenia: 3 exs., Yerevan, Kyulludzha, 22.V.1949, leg. Khnzorian (cKal).

C o m m e n t: The distribution of *A. humile* appears to be of the Ponto-Mediterranean type and ranges from West Europe eastwards to Middle Asia (ASSING 2010b). The species was previously unknown from Armenia.

#### Myrmoecia reitteri (EPPELSHEIM, 1881)

Zyras (Myrmoecia) argus IABLOKOFF-KHNZORIAN, 1960: 1883; nov.syn.

T y p e m a t e r i a l e x a m i n e d : Holotype  $\eth$ : Azizbekov, Chaikend, ASSR. 22.7.50 / Typus / ARMENIA, Vayotz dzor province, Azizbekov, Chaikend, 22.07.1950 / Holotypus / *Zyras argus* Khnz. / *Myrmoecia reitteri* (Eppelsheim), det. V. Assing 2017" (cKal).

C o m m e n t: The original description of *Zyras argus* is based on a unique holotype (IABLOKOFF-KHNZORIAN 1960). An examination of this specimen, a male, revealed that it is conspecific with *Myrmoecia reitteri*, a species previously known from Bosnia-Herzegovina, Greece, and Turkey (ASSING 2010a).

#### Aleochara (Xenochara) rambouseki Likovský, 1964

Aleochara (Polychara) rambouseki LIKOVSKÝ, 1964: 35 ff.

Aleochara (Polychara) addenda LIKOVSKÝ, 1981: 365 f.; nov.syn.

Aleochara (Xenochara) hamulata ASSING, 2009: 74 ff.; nov.syn.

Type material examined: A. rambouseki: see ASSING (2011).

A. addenda: Paratype ♂: "Ordubad, Sady / Paratypus / Paratypus Aleochara addenda m., det. Z. Likovský 1973 / Aleochara rambouseki Likovský, det. V. Assing 2017" (cKal).

A. hamulata: see ASSING (2009).

C o m m e n t : *Aleochara rambouseki* was described based on a single female collected in South Macedonia. Based on a revision of the unique female holotype, ASSING (2011) already suspected that the specimen may be conspecific with *A. hamulata*, a species described recently based on material from Croatia, Greece, Turkey, and Iraq (ASSING 2009). The original description of *A. addenda* is based on a male holotype and two male paratypes from "Armenien, Ordubad", a locality today situated in Azerbaijan; the species is erroneously listed for Armenia in SCHÜLKE & SMETANA (2015).

A revision of one of the male paratypes of *A. addenda* revealed that it is conspecific with *A. hamulata*. As pointed out earlier (ASSING 2011), the spermatheca of *A. hamulata* is practically identical to that of the holotype of *A. rambouseki*. Since the type locality of *A. rambouseki* is within the known range of *A. hamulata* and there is no evidence of a close relative of *A. hamulata* occurring in the Balkans, the holotype of *A. rambouseki* is hypothesized to represent a nanistic specimen and to be conspecific with the type material of both *A. hamulata* and *A. addenda*. Hence the synonymies proposed above.

# Aleochara (Xenochara) haematoptera KRAATZ, 1858

Additional material examined: <u>Armenia</u>: 1♂, Shamshadin, Berd, 23.VI.1953, leg. Khnzorian / "*Aleochara nobilis* m., vergl. mit Holotypus, det. Z. Likovský 1968" (cKal).

C o m m e n t: The above male was recorded as A. nobilis by LIKOVSKÝ (1971). An examination of the aedeagus, however, revealed that it is conspecific with A. haematoptera, not with A. nobilis.

## Aleochara (Xenochara) nobilis LIKOVSKÝ, 1965 (Fig. 8)

Aleochara (Heterochara) nobilis LIKOVSKÝ, 1965: 1 f.

T y p e m a t e r i a l e x a m i n e d: <u>Holotype ♂</u>: "Caucasus / Reitter determinirt. [sic] / brevicornis Epp. / Holotypus / Holotypus Aleochara nobilis m., Zb. Likovský det. 1965 / Mus. Nat. Pragae Inv. 20598" (NMP).

C o m m e n t: In the original description, which is based on a unique male holotype from "Caucasus (ohne nähere Angaben)", LIKOVSKÝ (1965) assigned the species to the subgenus *Heterochara* MULSANT & REY, 1874, probably because of the conspicuously stout antennae. An examination of the holotype, however, revealed that it belongs to *Xenochara* MULSANT & REY, 1874. The species was subsequently reported from Armenia by LIKOVSKÝ (1971), but this record is erroneous and refers to *A. haematoptera* (see above), so that *A. nobilis* is deleted from the list of Armenia Staphylinidae. The aedeagus of the holotype is illustrated in Fig. 8.

#### Aleochara (Coprochara) polychroma IABLOKOFF-KHNZORIAN, 1966 (Figs 9-10)

Aleochara polychroma LIKOVSKÝ, 1966: 175 f.

Type material examined: <u>Holotype ♂</u>: "Aragaz, 2800, Arkhashen, ASSR 28.8.48 / Holotypus *Aleochara polychroma* Khnz." (cKal).

C o m m e n t: This species is easily identified based on its large size (body length 6.2 mm) and its nearly uniformly reddish coloration. The median lobe of the aedeagus is illustrated in Figs 9-10.

## Anaulacaspis caucasica (FAGEL, 1969)

M a t e r i a l e x a m i n e d : Armenia: 1 d, Yerevan, Sovetashen, 4.IV.1952, leg. Khnzorian (cKal).

C o m m e n t: According to a recent revision, this species was previously known only from North Iran and Azerbaijan (ASSING 2016). The above male represents the first record from Armenia.

## Anaulacaspis persica (FAGEL, 1969)

M a t e r i a l  $\,$  e x a m i n e d : Armenia:  $1 \,$ đ, Yerevan, Sovetashen, 4.IV.1952, leg. Khnzorian (cKal).

C o m m e n t: The previously known distribution was confined to Iran and Kyrgyzstan (ASSING 2016). The above male represents the first record from Armenia.

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Mark Kalashian (Yerevan) granted permission to study the Iablokoff-Khnzorian collection, which is currently housed in his private home. Michael Schülke (Berlin) and Alexey Solodovnikov (Copenhagen) helped with the transliteration of specimen labels. Benedikt Feldmann (Münster) proof-read the manuscript.

## Zusammenfassung

Typen und weiteres Material aus der Iablokoff-Khnzorian-Sammlung werden revidiert. Folgende Namen werden synonymisiert: *Olophrum puncticolle* EPPELSHEIM, 1880 = *O. erevanicum* IABLOKOFF-KHNZORIAN, 1964, nov.syn.; *Astenus procerus* (GRAVENHORST, 1806) = *Astenus silvicola* IABLOKOFF-KHNZORIAN, 1961, nov.syn.; *Myrmoecia reitteri* (EPPELSHEIM, 1881) = *Zyras argus* IABLOKOFF-KHNZORIAN, 1960, nov.syn.; *Aleochara (Xenochara) rambouseki* LIKOVSKÝ, 1964 = *A. addenda* LIKOVSKÝ, 1981, nov.syn., = *A. hamulata* ASSING, 2009, nov.syn. Die Holotypen von *Rugilus armeniacus* (COIFFAIT, 1970), *Aleochara polychroma* IABLOKOFF-KHNZORIAN, 1966 und *A. nobilis* LIKOVSKÝ, 1965 werden abgebildet. Letztere Art wird in die Untergattung *Xenochara* MULSANT & REY, 1874 gestellt (ex *Heterochara* MULSANT & REY, 1874). Sieben Staphylinidenarten werden erstmals aus Armenien, eine erstmals aus Slowenien gemeldet. Die Meldung einer Art aus Armenien beruht auf einer Fehldetermination.

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